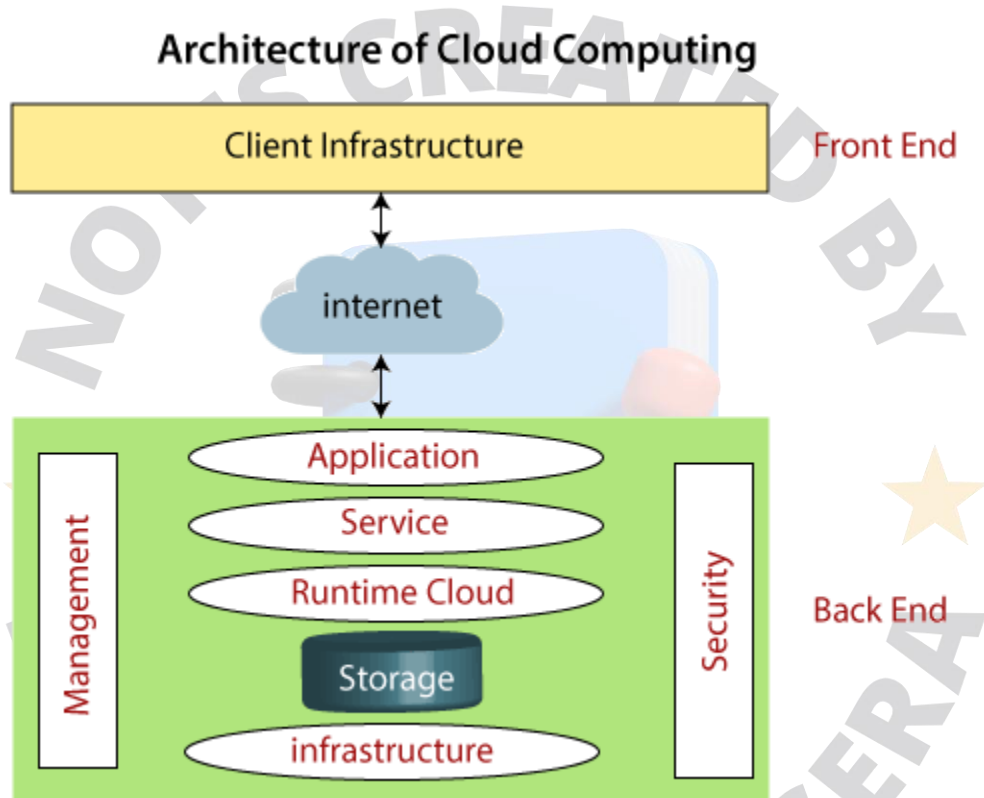


CLOUD COMPUTING ARCHITECTURE

Cloud computing architecture involves how cloud technology is structured to store and access information via the internet. It's divided into two main parts: Front End and Back End.



Front End (User's Side)

- Interfaces and applications that users interact with.
- Examples: web browsers (Chrome, Firefox), tablets, smartphones.

Back End (Service Provider's Side)

- Manages resources required to deliver cloud services.
- Includes: data storage, security, virtual machines, servers, traffic control.

Components of Cloud Computing Architecture

- **Client Infrastructure (Front End Component)**

Provides the user interface (GUI) to interact with the cloud.

- **Application**

Any software or platform a user wants to access via the cloud.

- **Service**

Determines the type of cloud service provided:

1. Software as a Service (SaaS): Access software via web browser. No download needed.

Examples: Google Apps, Dropbox.

2. Platform as a Service (PaaS): Provides a platform for software creation.

Examples: Windows Azure, OpenShift.

3. Infrastructure as a Service (IaaS): Manages application data,

middleware, and runtime.
Examples: AWS EC2, Google Compute Engine.

- **Runtime Cloud**

Provides the environment for virtual machines to run.

- **Storage**

Offers large storage capacity to manage and store data in the cloud.

- **Infrastructure**

Supports cloud services at various levels (host, application, network).

Includes hardware (servers, storage) and software (virtualization).

- **Management**

Manages backend components and ensures coordination between them.

- **Security**

Implements security measures in the backend to protect data.

- **Internet**

The medium through which the front end and back end communicate.

